FAA Success Story: Inspector Training at the Center of Excellence for General Aviation Research (CGAR)

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Overview

- Congressional Direction
- Training Requirement
- Motivation for Using an FAA Center of Excellence
- Finding the Best Mix of Aircraft and Flight Training Devices
- Growing the Program: More Courses, More Locations
- Benefits for the FAA inspector, Universities, and the Center

Congressional Direction

- Under Vision 100--Century Of Aviation Reauthorization Act of 2003 (PL 108-176),

  FAA inspectors:

  - Should be encouraged to take the most up-to-date initial and recurrent training on the latest aviation technologies
  - Attend training that has a direct relation to their individual job requirements
  - If possible, should be allowed to take training at the location most convenient for the inspector

Training Requirement

- Training provided to our workforce in FY 2004:
  - Total employees trained 4,558
  - Training quotas, all Flight Standards employees 14,685
  - Training quotas, Aviation Safety Inspectors 12,546

Aviation Safety Inspector	Specialty	Training quotas
Operations	General Aviation Operations	2478
	Air Carrier Operations	2998
Airworthiness	General Aviation Maintenance	2117
	Air Carrier Maintenance	2966
	General Aviation Avionics	676
	Air Carrier Avionics	1177
Cabin Safety	Cabin Safety	134

Training Requirement (cont.)

- General Aviation Operations Inspectors:
  - Who perform pilot evaluating, testing and checking functions in aircraft weighing 12,500 lbs or less
    - Must complete a formal FAA training course for each aircraft category assigned every 24 months (fixed-wing or rotorcraft)
    - This formal training requirement is in addition to informal quarterly flying required to maintain currency
  - Typically complete either Light Twin Refresher or Turboprop Recurrent training to meet this requirement
  - Must be trained to perform their job functions in aircraft that are equipped with the latest technologies

Motivation for Using an FAA Center of Excellence

- Center of Excellence for General Aviation Research (CGAR) provides unique capabilities to meet the training need:
  - Cost-effective flight training using advanced technology, otherwise unavailable for FAA training:
    - in technically advanced aircraft (TAA) equipped with GPS, ADS-B, and glass cockpits
    - State-of-the-art flight training devices (FTD), certified to Level 6 (identical to the aircraft)
  - Extensive experience in training and evaluating pilot skills in light single and multiengine aircraft

Motivation for Using an FAA Center of Excellence (cont.)

- Additional unique CGAR capabilities:
  - FTD training that allows practice and evaluation of inspector pilot responses to simulated flight events that would be difficult or dangerous to perform in the actual aircraft
  - Aircraft and FTD availability that exceeds 90%
  - Training management system allows controlled manipulation and testing of flight syllabus and training media alternatives
  - Demonstrated flexibility that supports our evolving flight training needs

Motivation for Using an FAA Center of Excellence (cont.)

- Centrally-managed, FAA-standardized flight training can be conducted at multiple sites that have excellent safety records

  Daytona Beach, FL
  Grand Forks, ND
  Prescott, AZ
  Others

- Inspectors can attend training at a location that is most convenient for them

Successful Test Classes

- Multiengine Performance and Instrument Refresher course (Light Twin-reciprocating)
  - Conducted 6 test classes (12 inspectors) at ERAU, Daytona Beach in 1Q 2004 under a CGAR grant
  - AFS Flight Program Manager developed an FAA standardization manual and FAA-approved checklist
  - Added Prescott location and 25 additional classes in FY 2004 (62 inspectors total)

Finding the Best Mix of Aircraft and Flight Training Devices

- ERAU helped us determine the best mix of aircraft and FTDs in the General Aviation Operations Indoctrination course
  - Conducted 3 test classes (48 inspectors total) during FY 2004
    - ERAU evaluated inspector learning and performance using different mixes of aircraft and FTDs to achieve an optimum
    - Jointly taught by FAA Academy (ground portion) and ERAU instructors (flight portion)
    - FAA on-site course manager monitors training and resolves any student inspector issues

Positive Feedback

- Light Twin Refresher course

"These guys were very good, as good as any I have run across in my 25 year career in the FAA -- no kidding."

- General Aviation Operations Indoctrination course

"Course instructors were without question highly qualified and highly competent. I was very impressed and satisfied with everyone I worked with. Great equipment, even greater instructors."

Growing the Program: More Courses, More Locations

- FY 2005–2007 Annual Performance Plan
  - Expand Use of Alternative Training Providers to Secure Quality Training and Cost Benefits
    - FY 2005:
      - Conduct 3 test classes of an Airworthiness Inspector course: Structural Inspection Programs Evaluation
      - Expand Light Twin Refresher course to include classes at University of North Dakota, Grand Forks, ND
    - FY 2006 and FY 2007:
      - Through the Flight Standards curriculum transformation initiative, use alternative delivery methods to provide one additional Operations and one additional Airworthiness training course (per year).

Benefits for the FAA Inspector Universities, and the Center

- For the Inspector:
  - The most up-to-date, yet cost-effective training, using the latest technologies
  - Safe, yet thorough training and checking received from experts in aircraft and matching FTDs
- For the Universities:
  - Interactions with active Aviation Safety Inspectors who provide the “working perspective” of the FAA
  - Greater exposure of university capabilities and competence
- For the Center:
  - Ongoing support for technology and Center programs

Questions?